

- Vitex sex-dentata* Will. = *Caryopteris foetida* (D. Don) Thellung
Vitex trifolia Vahl = *V. triflora* Vahl
Vitex trifolia sensu Clarke = *V. trifolia* var. *simplicifolia* Cham.
Vitex trifolia var. *trifolia* [L.] = *V. trifolia* L.
Volkameria foetida Buch.-Ham. = *Caryopteris foetida* (D. Don)
 Thellung*
Volkameria foetida Hamilt. = *Caryopteris foetida* (D. Don)
 Thellung*

ADDITIONAL NOTES ON THE ERIOCAULACEAE. XCII

Harold N. Moldenke

PAEPALANTHUS BRASILIENSIS (Mart.) Mart.

Additional bibliography: Mold., *Phytologia* 41: 476. 1979;
 Mold., *Phytol. Mem.* 2: 151 & 610. 1980.

PAEPALANTHUS BREVICAULIS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 137. 1973;
 Mold., *Phytol. Mem.* 2: 151 & 610. 1980.

Additional citations: MOUNTED CLIPPINGS: Alv. Silv., Fl.
 Mont. 1: 28--29, pl. 12. 1928 (Ld, N, S).

PAEPALANTHUS BRITTONI Mold.

Additional bibliography: Mold., *Phytologia* 37: 34. 1977; Mold.,
Phytol. Mem. 2: 90 & 610. 1980.

PAEPALANTHUS BROMELIOIDES Alv. Silv.

Additional bibliography: Mold., *Phytologia* 41: 476 & 484. 1979;
 Monteiro, Giulietti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo
 7: [43], 45, 46, 52, & 57, fig. 51--56. 1979; Rizzini, *Trat.*
Fitogeog. Bras. 2: 141, fig. 49. 1979; Mold., *Phytol. Mem.* 2: 151
 & 610. 1980.

Additional illustrations: Monteiro, Giulietti, Mazzoni, & Cas-
 tro, Bol. Bot. Univ. S. Paulo 7: 57, fig. 51--56. 1979; Rizzini,
Trat. Fitogeog. Bras. 2: 141, fig. 49. 1979.

Additional citations: BRAZIL: Minas Gerais: Eiten & Eiten
 10922 (E--2386544, Ut--3551138); Irwin, Maxwell, & Wasshausen
 20031 in part (W--2861846).

PAEPALANTHUS BRUNNESCENS Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 35. 1977; Mold.,
Phytol. Mem. 2: 151 & 610. 1980.

PAEPALANTHUS BRUNNEUS Mold.

Additional bibliography: Mold., *Phytologia* 37: 35. 1977; Mold.,
Phytol. Mem. 2: 117, 122, & 610. 1980.

Recent collectors have encountered this plant in forested areas and on igneous outcrops, at 150 m. altitude, in both flower and fruit in May.

Additional citations: VENEZUELA: Amazonas: *Steyermark, Davidse, & Guanchez 122533* (E--2901604). GUYANA: *Maguire & Fanshawe 23020* (W--1907817--isotype).

PAEPALANTHUS BRYOIDES (Riedel) Kunth

Additional bibliography: Mold., *Phytologia* 41: 476. 1979; Mold., *Phytol. Mem.* 2: 151, 424, & 610. 1980.

Additional citations: BRAZIL: Minas Gerais: *Brade 13604* [*Herb. Jard. Bot. Ric Jan.* 25382] (W--2928659). MOUNTED CLIPPINGS: Kunth, *Enum. Pl.* 3: 572. 1841 (W); Mold. & Sm. in *Reitz, Fl. Ilust. Catar. I Erio*: 55. 1976 (Ld).

PAEPALANTHUS BULBOSUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 35. 1977; Mold., *Phytol. Mem.* 2: 151 & 610. 1980.

Additional citations: BRAZIL: Minas Gerais: *Mendes Magalhaes 6* (Ld--photo). MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 184--186, pl. 119. 1928 (Ld, N, W).

PAEPALANTHUS CABRALENSIS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 35. 1977; Mold., *Phytol. Mem.* 2: 151 & 610. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 220--222, pl. 146. 1928 (Ld, N, W).

PAEPALANTHUS CACHAMBUENSIS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 35. 1977; Mold., *Phytol. Mem.* 2: 151 & 610. 1980; Mold., *Phytologia* 54: 146. 1983.

Material of this species has been misidentified as and distributed in some herbaria as *P. blepharocnemis* Mart. and the two collections cited below were previously regarded by me and cited by me as *P. aequalis* (Vell.) J. F. Macbr., a very closely related taxon.

Additional citations: BRAZIL: Minas Gerais: *Widgren s.n.* [1845] (Mu, N). São Paulo: *Brade 6584* (Mu, N). MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 50--52, pl. 27. 1928 (Ld, N, W).

PAEPALANTHUS CACUMINIS Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 36. 1977; Mold., *Phytol. Mem.* 2: 151 & 610. 1980.

PAEPALANTHUS CAESPITITUS Mart.

Additional bibliography: Mold., *Phytologia* 37: 36. 1977; Mold., *Phytol. Mem.* 2: 151 & 610. 1980.

PAEPALANTHUS CALDENSIS Malme

Additional bibliography: Mold., *Phytologia* 37: 36. 1977; Klein,

Sellowia 31: 132. 1979; Mold., Phytol. Mem. 2: 151, 424, 425, 428, & 610. 1980.

Additional & emended citations: BRAZIL: Minas Gerais: *Regnell III.1268* [16/11/1864] (W--200760--cotype). Paraná: *Dusén s.n.* [21.10.1908] (N). Santa Catarina: *Klein 3406* (N), *3494* (N); *Reitz & Klein 7903* (N). MOUNTED ILLUSTRATIONS: *Alv. Silv., Fl. Mont.* 1: pl. 74. 1928 (Ld); *Mold. & Sm. in Reitz, Fl. Ilust. Catar. I Erio:* 44, pl. 6, fig. 21--25. 1976 (Ld).

PAEPALANTHUS CALLOCEPHALUS *Alv. Silv.*

Additional bibliography: *Mold., Phytologia* 35: 21. 1976; *Mold., Phytol. Mem.* 2: 151, 610, & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: *Alv. Silv., Fl. Mont.* 1: 29--31, pl. 13. 1928 (Ld, N, W).

PAEPALANTHUS CALLOCEPHALUS var. *CILIATUS* *Alv. Silv.*

Additional bibliography: *Mold., Phytologia* 35: 21. 1976; *Mold., Phytol. Mem.* 2: 151 & 610. 1980.

Additional citations: MOUNTED CLIPPINGS: *Alv. Silv., Fl. Mont.* 1: 31--32. 1928 (W).

PAEPALANTHUS CALLOCEPHALUS var. *GLABER* *Alv. Silv.*

Additional bibliography: *Mold., Phytologia* 26: 139. 1973; *Mold., Phytol. Mem.* 2: 151 & 611. 1980.

Additional citations: *Alv. Silv., Fl. Mont.* 1: 31. 1928 (N, W).

PAEPALANTHUS CALLOCEPHALUS var. *VILLOSUS* *Alv. Silv.*

Additional bibliography: *Mold., Phytologia* 35: 21--22. 1976; *Mold., Phytol. Mem.* 2: 151 & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: *Alv. Silv., Fl. Mont.* 1: 31, pl. 13. 1928 (Ld, N, W).

PAEPALANTHUS CALLOPHYLLUS *Alv. Silv.*

Additional bibliography: *Mold., Phytologia* 26: 140. 1973; *Mold., Phytol. Mem.* 2: 151 & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: *Alv. Silv., Fl. Mont.* 1: 217--218, pl. 144. 1928 (Ld, N, W).

PAEPALANTHUS CALVOIDES *Ruhl.*

Additional bibliography: *Mold., Phytologia* 26: 140--141. 1973; *Mold., Phytol. Mem.* 2: 151 & 611. 1980.

PAEPALANTHUS CALVUS *Körn.*

Additional bibliography: *Mold., Phytologia* 37: 36. 1977; *Mold., Phytol. Mem.* 2: 151 & 611. 1980.

PAEPALANTHUS CAMPTOPHYLLUS *Ruhl.*

Additional bibliography: *Mold., Phytologia* 37: 36. 1977; *Mold., Phytol. Mem.* 2: 151 & 611. 1980.

Hatschbach encountered this plant along shaded sandy roadsides and on campo rupestre in sandy soil among rocks, at 1100 m. altitude, in both flower and fruit in March and July.

Additional citations: BRAZIL: Minas Gerais: *Hatschbach 41530* (Ld), 42866 (Ld, W--2931778).

PAEPALANTHUS CAMPTOPHYLLUS var. *GRACILIS* Ruhl.

Additional bibliography: Mold., *Phytologia* 26: 142--143. 1973; Mold., *Phytol. Mem.* 2: 151 & 611. 1980.

Additional citations: BRAZIL: Minas Gerais: *Schwacke 9440* [Herb. Jard. Bot. Rio Jan. 63706] (W--2928660--isotype).

PAEPALANTHUS CANASTRENSIS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 143. 1973; Mold., *Phytol. Mem.* 2: 151 & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 228--229, pl. 151. 1928 (Ld, N, W).

PAEPALANTHUS CANDIDUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 33: 33. 1976; Mold., *Phytol. Mem.* 2: 151 & 611. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: Alv. Silv., *Fl. Serr. Min.* pl. 13. 1908 (Ld).

PAEPALANTHUS CANESCENS (Bong.) Körn.

Additional bibliography: Mold., *Phytologia* 35: 22. 1976; Mold., *Phytol. Mem.* 2: 151 & 611. 1980.

Additional citations: BRAZIL: Minas Gerais: *Gibbs, Abbott, & Andrade 5176* (Ld).

PAEPALANTHUS CANESCENS f. *ANGUSTIFOLIUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 26: 145--146. 1973; Mold., *Phytol. Mem.* 2: 151 & 611. 1980.

PAEPALANTHUS CANESCENS var. *ATRATUS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 22. 1976; Mold., *Phytol. Mem.* 2: 151 & 611. 1980.

Additional citations: BRAZIL: Goias: *W. R. Anderson 6636* (W--2755385--isotype).

PAEPALANTHUS CAPANEMAE Alv. Silv.

Additional bibliography: Mold., *Phytologia* 41: 476--477. 1979; Mold., *Phytol. Mem.* 2: 151 & 611. 1980.

Additional citations: BRAZIL: Rio de Janeiro: *Araujo & Maciel 4479* [Herb. FEEMA 19832] (N), 5006 [Herb. FEEMA 22259] (N). MOUNTED ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* pl. 68. 1928 (Ld); E. Y. Dawson, Los Angeles Co. Mus. *Contrib. Sci.* 7: 5, fig. 1 [left]. 1957 (Ld).

PAEPALANTHUS CAPAROËNSIS Ruhl.

Additional bibliography: Mold., *Phytologia* 41: 477. 1979; Mold., *Phytol. Mem.* 2: 151 & 611. 1980.

PAEPALANTHUS CAPILLACEUS Klotzsch

Additional bibliography: Knuth, *Feddes Repert. Spec. Nov. Beih.*

43: [Init. Fl. Venez.] 179. 1927; Mold., *Phytologia* 37: 36--37 (1977) and 41: 384. 1979; Mold., *Phytol. Mem.* 2: 117, 122, 151, 424, 426, 428, & 611. 1980.

Recent collectors describe this plant as an abundant aquatic herb, submerged but with emergent inflorescences, in running water in streams and streamlets on savannas and attached to soil at the base of rocks in shallow running water, and as "predominante em todo curso de corredeiras, infloresc. marrom claro", at 1210 m. altitude, in both flower and fruit in January, February, August, October, and November. Collectors in Guyana report it locally common, attached to and rooting on rocks in rapids, submerged in 30 cm. of water and locally abundant in the shallow lower portions of streams, describing the rhizome as brown, the leaves glossy-green or "translucent blackish-green", the peduncles white, the bracts black or blackish, the flowers white, and the fruiting-heads brown. They found it growing at 550--1140 m. altitude, in flower in July and October and in fruit in July and November.

Knuth (1927) cites the following collections from Venezuela: Bolívar: *Schomburgk* 1222. Roraima: *Connell & Quelch* 314. State undetermined: *Appun* 1217.

Additional citations: VENEZUELA: Amazonas: *Maguire & Maguire* 29153 in part (N); *Steyermark* 58138 in part (N); *Steyermark, Guariglia, Holmgren, Luteyn, & Mori* 126129 (Ld). Bolívar: *Luteyn, Lebrón-Luteyn, & Steyermark* 6323 (N. W--2929413); *Moore, Ambrose, Dietz, & Pfister* 9836 (Ba, Mi, N); *W. W. Thomas* 2529 (N). GUYANA: *Maas, Mennaga, Welle, & Green* 5731 (Ld); *Persaud* 186 (N); *Tillett & Tillett* 45793 (N); *Tillett, Tillett, & Boyan* 43980 (N). BRAZIL: Amazonas: *Froes* 25383 in part (N); *Rosa & Lira* 2280 (N). MOUNTED CLIPPINGS: *Herzog, Feddes* Repert. Spec. Nov. 29: 208. 1931 (W).

PAEPALANTHUS CAPILLACEUS f. *PROLIFERUS* (Gleason) Mold.

Synonymy: *Paepalanthus capillaceus* var. *proliferus* Gleason, *Bull. Torrey Bot. Club* 58: 328. 1931. *Paepalanthus capillaceus proliferus* Gleason, in herb.

Additional bibliography: Mold., *Phytologia* 37: 37 (1977) and 44: 384. 1979; Mold., *Phytol. Mem.* 2: 117, 122, 151, 424, & 611. 1980.

Additional & emended citations: VENEZUELA: Amazonas: *Maguire & Maguire* 29153 in part (Bm, Bo, E, G, Ja, N, Ut, Ve, W); *Steyermark* 58138 in part (N); *G. H. H. Tate* 552 (W--1497494--isotype). BRAZIL: Amazonas: *Froes* 25383 in part (N).

PAEPALANTHUS CAPILLACEUS var. *SPIRALIS* Mold.

Additional bibliography: Mold., *Phytologia* 29: 303. 1974; Mold., *Phytol. Mem.* 2: 122 & 611. 1980.

Additional citations: GUYANA: *Maguire & Fanshawe* 32292 (W--2168879--isotype).

PAEPALANTHUS CAPILLARIS (Bong.) Kuhn.

Additional bibliography: Mold., *Phytologia* 37: 37. 1977; Mold.,

Phytol. Mem. 2: 151 & 611. 1980.

Héringer and his associates describe this plant as having pilose leaves and white inflorescences and have found it growing in brejo, flowering in April. Their collection, cited below, is a mixture with a species of *Cyperus*.

Additional citations: BRAZIL: Distrito Federal: Héringer, Figueiras, Mendonça, Pereira, Salles, & Silva 4420 in part (N).

PAEPALANTHUS CAPILLATUS Alv. Silv.

Additional bibliography: Mold., Phytologia 26: 191. 1973; Mold., Phytol. Mem. 2: 151 & 611. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 79--80, pl. 46 & 47. 1928 (Ld, N, W).

PAEPALANTHUS CAPILLIFOLIUS Mold.

Additional bibliography: Mold., Phytologia 37: 37. 1977; Mold., Phytol. Mem. 2: 151, 425, 443, & 611. 1980.

Additional synonymy: *Paepalanthus filifolius* Mold., Phytol. Mem. 2: 425, in syn. 1980.

Additional citations: BRAZIL: Minas Gerais: Hatschbach, Anderson, Barneby, & Gates 36456 (W--2849694--isotype). MOUNTED ILLUSTRATIONS: Original drawings of type (Ld).

PAEPALANTHUS CAPITATUS Alv. Silv.

Additional bibliography: Mold., Phytologia 26: 192. 1973; Mold., Phytol. Mem. 2: 151 & 611. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 164--165, pl. 104. 1928 (Ld, N, W).

PAEPALANTHUS CAPITO Körn.

Additional bibliography: Mold., Phytologia 37: 37. 1977; Mold., Phytol. Mem. 2: 151, 427, & 611. 1980.

PAEPALANTHUS CARACENSIS Alv. Silv.

Additional bibliography: Mold., Phytologia 26: 193. 1973; Mold., Phytol. Mem. 2: 151 & 611. 1980.

PAEPALANTHUS CARDONAE Mold.

Additional bibliography: Mold., Phytologia 37: 37. 1977; Mold., Phytol. Mem. 2: 117 & 611. 1980.

Davidse found this plant growing "in distinct grassy zones between morichal and savannas, the morichal being a palm swamp with *Mauritia flexuosa* surrounded by *Trachypogon* savanna with very widely spaced *Cuartella* and *Bowdichia*", at 100 m. altitude, both in flower and fruit in November. He speaks of the "spikelets" being white.

Additional citations: VENEZUELA: Guárico: Davidse 4324 (E--2773096).

PAEPALANTHUS CASTANEUS Alv. Silv.

Additional bibliography: Mold., Phytologia 26: 193. 1973; Mold., Phytol. Mem. 2: 151 & 611. 1980.

Additional citations: MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 249--251, pl. 166. 1928 (Ld, N, W).

PAEPALANTHUS CATHARINAE Ruhl.

Additional bibliography: Klein, Sellowia 31: 132. 1979; Mold., Phytologia 41: 477. 1979; Mold., Phytol. Mem. 2: 152, 424--426, & 611. 1980.

Recent collectors have encountered this plant at 700 m. altitude, in flower in October.

Additional & emended citations: BRAZIL: Paraná: *Dusén 15783* (Mi, N, Ws); *Hatschbach 40448* (N); *Jönsson 1143a* (Ws).

PAEPALANTHUS CATHARINAE var. *HATSCHBACHI* (Mold.) Mold. & Sm.

Additional bibliography: Mold., Phytologia 41: 477. 1978; Mold., Phytol. Mem. 2: 152, 424--426, & 611. 1980.

PAEPALANTHUS CEARAENSIS Ruhl.

Additional bibliography: Mold., Phytologia 37: 38. 1977; Mold., Phytol. Mem. 2: 152 & 611. 1980.

The *Lisboa 4* [Herb. Jard. Bot. Rio Jan. 4764], distributed as *P. cearaensis*, actually is *P. lamarckii* Kunth.

PAEPALANTHUS CEPHALOTRICHUS Alv. Silv.

Additional bibliography: Mold., Phytologia 33: 34. 1976; Mold., Phytol. Mem. 2: 152 & 611. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: pl. 39 [prim.]. 1928 (Ld).

PAEPALANTHUS CHAPADENSIS Alv. Silv.

Additional bibliography: Mold., Phytologia 29: 304--305. 1974; Mold., Phytol. Mem. 2: 152 & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 232--233, pl. 154. 1928 (Ld, N, W).

PAEPALANTHUS CHASEAE Mold.

Additional bibliography: Mold., Phytologia 26: 197. 1973; Angely, S. Amer. Bot. Bibl. 2: 675. 1980; Mold., Phytol. Mem. 2: 152 & 611. 1980.

PAEPALANTHUS CHIAPENSIS Mold.

Additional bibliography: Mold., Phytologia 26: 197. 1973; Mold., Phytol. Mem. 2: 65 & 611. 1980.

PAEPALANTHUS CHIQUITENSIS Herzog

Additional bibliography: Hocking, Excerpt. Bot. A.25: 379. 1975; Mold., Phytologia 37: 38. 1977; Mold., Phytol. Mem. 2: 175, 428, & 611. 1980.

Anderson describes this plant as an herb about 0.8 m. tall, with white flower-heads, and encountered it in brushy swamps with standing or gently flowing water, probably seasonally dry (pampa) and in adjacent open drainage ditches, in flower in February.

Additional citations: BOLIVIA: El Beni: *W. R. Anderson* 11992 (N).

PAEPALANTHUS CHLOROBLEPHARUS Ruhl.

Additional bibliography: Mold., *Phytologia* 26: 198. 1973; Mold., *Phytol. Mem.* 2: 152 & 611. 1980; Mold., *Phytologia* 50: 247. 1982.

Recent collectors have found this plant growing at the "mergens de correjo encachoeirado" and in large cracks in rocks on campo rupestre, at 1000 m. altitude, in flower in June, and both in flower and fruit in July.

Additional citations: BRAZIL: Bahia: *Mori & Boom* 14458 (Ld, N). Minas Gerais: *Hatschbach* 41521 (Ld).

PAEPALANTHUS CHLOROCEPHALUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 33: 35. 1976; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: pl. 178. 1928 (Ld, N).

PAEPALANTHUS CHLORONEMA Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 198--199. 1973; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 121--123, pl. 76. 1928 (Ld, N, W).

PAEPALANTHUS CHLOROPHYLLUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 199 & 200. 1973; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 80--82, pl. 9 & 48. 1928 (Ld, N, W).

PAEPALANTHUS CHLOROPUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 199--200. 1973; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., Fl. Mont. 1: 24--25. 1928 (Ld, N, W).

PAEPALANTHUS CHRYSOLEPIS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 38. 1977; Mold., *Phytol. Mem.* 2: 152, 425, & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 256--258, pl. 170 [prim.]. 1928 (Ld, N, W).

PAEPALANTHUS CHRYSOPHORUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 38. 1977; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: BRAZIL: Goiás: *Hatschbach* 36733 (W--2850701). MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 176--178, pl. 114. 1928 (Ld, N, W).

PAEPALANTHUS CILIATUS (Bong.) Kunth

Additional bibliography: Mold., *Phytologia* 37: 38. 1977; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: MOUNTED CLIPPINGS: Kunth, *Enum. Pl.* 3: 572. 1841 (W).

PAEPALANTHUS CILIATUS var. *GLABRESCENS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 202. 1973; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., *Fl. Mont.* 1: 213. 1928 (N, W).

PAEPALANTHUS CILIOLOATUS Ruhl.

Additional bibliography: Hocking, *Excerpt. Bot. A.* 23: 389. 1974; Mold., *Phytologia* 33: 35. 1976; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: pl. 29. 1928 (Ld, N).

PAEPALANTHUS CIPOENSIS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 38. 1977; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 218--220, pl. 145. 1928 (Ld, N, W).

PAEPALANTHUS CLAUSSENIANUS Körn.

Additional bibliography: Mold., *Phytologia* 41: 477. 1979; Mold., *Phytol. Mem.* 2: 152, 369, 424, & 611. 1980.

Recent collectors have encountered this plant in fog-covered cerrado and "common on open campos"; Heringer and his associates refer to it as "very ornamental", growing in wet cerrado.

Additional citations: BRAZIL: Amazônas: Calderón, Monteiro, & Guedes 2770 (Ld). Distrito Federal: Heringer 16198 (N); Heringer, Figueiras, Mendonça, Pereira, Salles, & Silva 4716 (W--2926752). Minas Gerais: Irwin, Maxwell, & Wasshausen 19645 (W--2861725).

PAEPALANTHUS COLOIDES Ruhl.

Additional bibliography: Mold., *Phytologia* 41: 477. 1979; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: BRAZIL: Minas Gerais: Hatschbach 41366 (W--2840073).

PAEPALANTHUS COLUMBIENSIS Ruhl.

Additional bibliography: Knuth, *Feddes Repert. Spec. Nov. Beih.* 43: [Init. *Fl. Venez.*] 179. 1927; Mold., *Phytologia* 41: 477. 1979; Mold., *Phytol. Mem.* 2: 109, 117, 425, & 611. 1980; Mold., *Phytologia* 54: 148 & 149. 1983.

Recent collectors describe this plant as a rosulate herb, 50 cm. tall, growing from thick underground stems, forming dense rosettes to 20 cm. in diameter, the inflorescences white or whitish, the bracts light-brown or brown with white margins, the florets

white, and have found it growing on paramo and subparamo, in rocky subparamo grassland, and in woodland bogs, at 1900--3450 m. altitude, in flower in March and May, and in both flower and fruit in February and August.

Knuth (1927) cites *Jahn* 975 from Mérida, Venezuela. The *Castellano-Monasterio* 120, distributed as *P. columbiensis*, actually is *P. diffusus* Mold. The *Bernardi* 6066, *Burbidge* 75/408, *Core* 997, *Cuatrecasas* 9514, 11969, & 17841, *Cuatrecasas & Bariga* 9878, *Fosberg & Schultes* 19217, *Killip* 34047, *Køie* 5101, *Luteyn & al.* 7685, *Pennell* 6910, and *Schultes* 4058, previously cited by me as *P. columbiensis*, seem better regarded as *P. andicola* Körn., while *García-Barriga* 18034 and *Luteyn, Dumont, & Lebrón-Luteyn* 4720 are *P. andicola* var. *villosus* Mold.

Additional citations: COLOMBIA: Boyacá: *Cleef* 9741 (W--2851299); *Cuatrecasas* 10328 (W--2819497); *Luteyn, Labrón-Luteyn, & Pabón E.* 7685 (Au, N). Cauca: *Cuatrecasas & Lehmann* 27389 (W--2615101). Cundinamarca: *Barkley & Saldarriaga C.* 43036 (E--2190233); *Core* 16 (W--2105124); *Cuatrecasas* 9528 (W--1850815); *Dwyer & Idrobo* 8180 (E--2773082); *García-Barriga* 17691 (W--2725828); *Luteyn, Lebrón-Luteyn, Espina Z., & Palacios* 7743 (N); *R. E. Schultes* 11547 (W--2198860, W--2198861), 18792 (W--2198910). Norte de Santander: *García-Barriga & Jaramillo Mejía* 19969 (W--2957946). Santander: *Cleef, García-Barriga, & Jaramillo Mejía* 3526 (W--2850653, W--2850654).

PAEPALANTHUS COMANS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 41: 478. 1979; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

The Eitens encountered this plant on a natural open rocky campo, at 1250 m. altitude, in both flower and fruit in March.

Additional citations: BRAZIL: Minas Gerais: *Eiten & Eiten* 11027 (E--2773095); *Hatschbach* 40862 (W--2850728). MOUNTED ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: pl. 174. 1928 (Ld, N).

PAEPALANTHUS COMOSUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 22--23. 1976; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: BRAZIL: Minas Gerais: *Anderson, Stieber, & Kirkbride* 35885 (W--2709582). MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 129--130, pl. 80. 1928 (Ld, N, W).

PAEPALANTHUS COMPACTUS G. Gardn.

Additional bibliography: Mold., *Phytologia* 35: 23. 1976; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: BRAZIL: Minas Gerais: *G. Gardner* 5247 (W--1067047--isotype).

PAEPALANTHUS COMPLANATUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 23. 1976; Mold., *Phytol. Mem.* 2: 152 & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv.

Silv., Fl. Mont. 1: 244--246, pl. 163. 1928 (Ld, N, W).

PAEPALANTHUS CONDUPLICATUS Körn.

Additional bibliography: Mold., Phytologia 37: 39. 1977; Mold., Phytol. Mem. 2: 152, 426, & 611. 1980.

PAEPALANTHUS CONDUPLICATUS var. *PUBESCENS* Alv. Silv.

Additional bibliography: Mold., Phytologia 26: 236. 1973; Mold., Phytol. Mem. 2: 152 & 611. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., Fl. Mont. 1: 241. 1928 (Ld, N, W).

PAEPALANTHUS CONICUS Alv. Silv.

Additional bibliography: Mold., Phytologia 26: 236. 1973; Mold., Phytol. Mem. 2: 152 & 611. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 136--137, pl. 85. 1928 (Ld, N, W).

PAEPALANTHUS CONTASENSIS Mold., Phytologia 45: 472--473, pl. 2. 1980.

Bibliography: Mold., Phytologia 45: 472--473, pl. 2. 1980; Mold., Phytol. Mem. 2: 152 & 611. 1980.

Illustrations: Mold., Phytologia 45: 473, pl. 2. 1980.

Mori and his associates have encountered this plant on campo rupestre, at 1000 m. altitude, in both flower and fruit in July.

Citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 1990 (Ld--type, N--isotype, W--2936343--isotype); Mori, King, Santos, & Hage 12385 (Ld, N, W--2854257).

PAEPALANTHUS CONVEXUS Gleason

Additional bibliography: Mold., Phytologia 41: 478 & 481. 1979; Mold., Phytol. Mem. 2: 117, 152, & 612. 1980; Mold., Phytologia 52: 19. 1982; Tillett & Steyerl., Ernstia 9: 3. 1982.

Recent collectors describe this plant as tufted, 40--45 cm. tall, the stems very short or elongated, the leaves erect-ascending, stiffish to subcoriaceous or coriaceous, brittle, green or deep-green on both surfaces. with white margins, or dull-green above and paler green beneath. sometimes even very lustrous dark-green above and medium-green beneath, glabrous, the sheaths gray-pubescent, the peduncles lustrous, medium gray-tan, the heads white or whitish, the phyllaries (bracts) gray-brown, and the flowers medium-gray. They have found it growing in *Stegolepis*-*Brocchinia*-*Heliamphora* bogs, along exposed wet margins of *Bonnetia roraimae* forests, in moist spongy ground in shallow parts and upper slopes on zanjon, in humid caatinga forests, and "frequent on open slopes at base of cliffs", at 1300--3000 m. altitude, in both flower and fruit in January, February, August, October, and December.

Material has been misidentified and distributed in some herbaria as the closely related *P. fraternus* N. E. Br. and as *Leiothrix turbinata* Gleason. On the other hand, the *Silva & Brazão 60926*, previously cited as typical *P. convexus*, actually is the

type collection of *P. convexus* var. *major* Mold.

Additional citations: VENEZUELA: Amazonas: *Steyermark 58041* (W--1987372), *103892* (Ld, N), *103948* (N); *Steyermark, Brewer-Carías, & Liesner 124533* (E--2901865); *G. H. H. Tate 658* (W--1497558--isotype); *Tillett, Colvée, & al. 752-199* (Ve). Bolívar: *Moore, Ambrose, Dietz, & Pfister 9793* (Ba); *Steyermark 58778* (W--1901785), *58876* (W--1987398), *93683* (W--2584107), *93958* (W--2584306); *Steyermark, Espinosa, McDiarmid, & Brewer-Carías 115778* (Ld), *115991* (Ld), *116119* (Ld), *116134* (Ac). BRAZIL: Amazonas: *Maguire, Murça Pires, & Maguire 60487* (N); *Rosa & Lira 2279* (Ld, N, N).

PAEPALANTHUS CONVEXUS var. *MAJOR* Mold.

Additional bibliography: Mold., *Phytologia* 26: 237. 1973; Mold., *Phytol. Mem.* 2: 117, 152, & 612. 1980.

Recent collectors describe this plant as having stems elongated to 50 cm., the leaves gray-green, pubescent with white hairs, soft, broader, and the heads dull-white. They have found it growing in *Heliamphora* swamps, on semi-level savanna-like areas with bushes, on the shaded slopes of wooded grottos, along the edge of sandstone rock formations bordering subsavannas of *Mallophyton* and *Chimantaea*, and among rocks in sandy areas near rapids, at 1200--2480 m. altitude, in both flower and fruit in February and October.

The type collection was previously misidentified as typical *P. convexus* Gleason.

Additional citations: VENEZUELA: Amazonas: *Steyermark 103955* (Ld, N); *Steyermark, Guariglia, Holmgren, Luteyn, & Mori 126303* (Ld), *126394* (Ld). Bolívar: *Steyermark, Huber, & Carreño E. 128871* (Ld), *128980* (Ld); *W. W. Thomas 2507* (N). BRAZIL: Amazonas: *Silva & Brazao 60926* (Ld--isotype).

PAEPALANTHUS CONVEXUS var. *PARVICEPHALUS* Mold., *Phytologia* 52: 19. 1982.

Bibliography: Mold., *Phytologia* 52: 19. 1982.

Collectors describe this plant as having elongated stems, the leaves grayish-green above or "hojas verdes extendidas", and have found it growing in wet places below rocks, at 2580--2800 m. altitude, in both flower and fruit from February to April.

Citations: VENEZUELA: Amazonas: *Steyermark, Brewer-Carías, & Liesner 124418* (E--2901864); *Steyermark & Delascio 129105* (Ld), *129107* (Ld), *129192* (Ld); *Steyermark, Guariglia, Holmgren, Luteyn, & Mori 125939* (Ld), *126100* (Ld--type).

PAEPALANTHUS CONVEXUS var. *STRIGOSUS* Mold.

Additional bibliography: Mold., *Biol. Abstr.* 64: 2433. 1977; Mold., *Phytologia* 37: 39. 1977; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Steyermark and his associates encountered this plant at 2450 m. altitude, in flower in February.

Additional citations: VENEZUELA: Amazonas: *Steyermark, Guariglia, Holmgren, Luteyn, & Mori 126337* (Ld).

PAEPALANTHUS CORDATUS Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 39. 1977; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

PAEPALANTHUS CORONARIUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 238. 1973; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 63--65, pl. 36. 1928 (Ld, N, W).

PAEPALANTHUS CORONARIUS var. *CILIATUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 238--239. 1973; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., *Fl. Mont.* 1: 65. 1928 (N, W).

PAEPALANTHUS CORYMBOIDES Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 39. 1977; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

PAEPALANTHUS CORYMBOIDES var. *EPILOSUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 26: 239. 1973; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

PAEPALANTHUS CORYMBOSUS (Bong.) Kunth

Additional bibliography: Mold., *Phytologia* 37: 40. 1977; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Additional citations: MOUNTED CLIPPINGS: Kunth, *Enum. Pl.* 3: 575. 1841 (N, W).

PAEPALANTHUS COSTARICENSIS Mold.

Additional bibliography: Mold., *Phytologia* 37: 40. 1977; Mold., *Phytol. Mem.* 2: 81, 357, & 612. 1980.

Weston encountered this plant at 2800 m. altitude, in flower in July. Material has been misidentified and distributed in some herbaria as *P. kupperi* Suesseng.

Additional citations: COSTA RICA: Cartago: *Weston 1537* (Lc).

PAEPALANTHUS COUTOËNSIS Mold.

Additional bibliography: Mold., *Phytologia* 35: 23. 1976; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Recent collectors describe this plant as having the inflorescences cream-color, maroon at the base, and have found it growing on natural campos, flowering in September.

Additional citations: BRAZIL: Bahia: *Santos, Mori, & Mattos Silva 3363* (Ld). MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 211--212, pl. 139 & 140. 1928 (Ld, N, W).

PAEPALANTHUS CRASSICAULIS Körn.

Additional bibliography: Mold., *Phytologia* 41: 478. 1979; Mold., *Phytol. Mem.* 2: 109, 117, 129, 134, & 612. 1980; Mold.,

Phytologia 50: 245. 1982.

Recent collectors describe the inflorescence of this plant as "grayish-white" and refer to the plant as a "common terrestrial on rocks" in an area of "sandstone outcrops with sterile white sand overlying black sand and with Ericaceae, *Weinmannia*, and melastomes abundant", at 2550--2700 m. altitude, in flower in September and in both flower and fruit in March and June. They have also encountered it in shrub-dominated areas and in páramo areas of low vegetation and scattered large boulders. Callejas & Gaviria note: "Hierba abundante, creciendo en suelos inundados, en suelos secos forma asociaciones con *Espeletia occidentalis* var. *antioquiensis*".

Additional citations: COLOMBIA: Antioquia: Callejas & Gaviria 864 (N). Boyacá: *Melampy* 22 (W--2916211). Cundinamarca: Cuatrecasas 9424 (W--1797351); Ewan 16906 (W--2106332); Fosberg 21353 (W--2109056); Fosberg & Villareal 20606 (W--2108764); Haught 5599 (W--1709775), 5732 (W--1709798); Killip, García Barriaga, & Gutierrez Villegas 38039 (W--1855983); Moore, Ambrose, & Dietz 9863 (Ba). ECUADOR: Loja: Balslev 1302 (Ld, N); Fosberg & Giler 23099 (W--2109839); Luteyn & Clemants 7973 (N); Steyermark 54409 (W--1901691). PERU: Amazonas: Hutchison & Wright 5541 (W--2508683); Luteyn & Lebrón-Luteyn 5532 (N, W--2915258). Cajamarca: López, Sagastegui, & Aldéve 6707 (W--2848724).

PAEPALANTHUS CRATERIFORMIS Alv. Silv.

Additional bibliography: Mold., Phytologia 37: 40. 1977; Mold., Phytol. Mem. 2: 152 & 612. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 74. 1980.

Recent collectors describe this plant as 30 cm. tall, the "stems" [=peduncles?] and leaves erect, pale gray-green, white-hairy, the leaves 1--2 mm. wide, the involucre bractlets stramineous, the heads white when young, gray when older. They have encountered it in sandy poorly drained soil and in open scrub on white sand with damp areas and extensive sedge meadows (brejo) partly burned over, at 950--1000 m. altitude, in both flower and fruit in February and March.

Additional citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 18824 (Ld, N); Mori & Funch 13399 (Ld, N). MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 60--61, pl. 34. 1928 (Ld, N, W).

PAEPALANTHUS CRISTATUS Mold.

Additional bibliography: Mold., Phytologia 37: 40 (1977) and 38: 36. 1977; Mold., Phytol. Mem. 2: 117 & 612. 1980.

Recent collectors have encountered this plant on dry, sandy, rocky plateaus and forming dull-green clumps in sandy openings near streams, at 2140--2200 m. altitude, in both flower and fruit in January and February.

Additional citations: VENEZUELA: Bolívar: Steyermark, Espinosa, McDiarmid, & Brewer-Carías 115986(Ld); Steyermark, Huber, & Carreño E. 128259 (Ld).

PAEPALANTHUS CRYOCEPHALUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 40. 1977; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 116--117, pl. 72. 1928 (Ld, N, W).

PAEPALANTHUS CUMBRICOLA Mold.

Additional bibliography: Mold., *Phytologia* 37: 40. 1977; Mold., *Phytol. Mem.* 2: 117 & 612. 1980.

Recent collectors refer to this plant as an herb with gray inflorescences, have encountered it at 1200 m. altitude, and have misidentified and distributed it to herbaria as *Syngonanthus* sp.

Additional citations: VENEZUELA: Bolívar: Maas & Steyermark 5392 (Ld); Moore, Ambrose, Dietz, & Pfister 9813 (Mi).

PAEPALANTHUS CURURENSIS Mold.

Additional bibliography: Mold., *Phytologia* 26: 245. 1973; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Calderón and his associates refer to this as a very delicate plant growing with mosses and other eriocauls among rocks on rocky river edges. They found it in both flower and fruit in June.

Additional citations: BRAZIL: Amazônas: Calderón, Monteiro, & Guedes 2610 (Ld).

PAEPALANTHUS CUSPIDATUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 41: 478. 1979; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: pl. 26. 1928 (Ld, N).

PAEPALANTHUS CYLINDRACEUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 245. 1973; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 130--131, pl. 81. 1928 (Ld, N, W).

PAEPALANTHUS DAMAZIOI Beauverd

Additional bibliography: Mold., *Phytologia* 26: 246. 1973; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Citations: MOUNTED CLIPPINGS: Beauverd, *Bull. Herb. Boiss.*, ser. 2, 8: 292. 1908 (N, W).

PAEPALANTHUS DASYNEMA Ruhl.

Additional bibliography: Mold., *Phytologia* 26: 246--247. 1973; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

PAEPALANTHUS DECORUS Abbiatti

Additional bibliography: Mold., *Phytologia* 26: 247. 1973; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Citations: MOUNTED ILLUSTRATIONS: Abbiatti, *Notas Mus. La Plata Bot.* pl. 1. 1948 (Ld).

PAEPALANTHUS DECUSSUS Körn.

Additional bibliography: Mold., *Phytologia* 26: 247--248. 1973; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

PAEPALANTHUS DENNISI Mold.

Additional bibliography: Mold., *Phytologia* 26: 248. 1973; Mold., *Phytol. Mem.* 2: 117 & 612. 1980.

PAEPALANTHUS DENSIFOLIUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 41: 478. 1979; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Additional citations: BRAZIL: Minas Gerais: *Hatschbach 41299* (N, W--2931642). MOUNTED ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: pl. 58 & 59 (Ld, N).

PAEPALANTHUS DENUDATUS Körn.

Additional bibliography: Mold., *Phytologia* 41: 478--479. 1979; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

Additional citations: BRAZIL: Minas Gerais: *G. Gardner 5252* (W--1067048--isotype); *Hatschbach 40906* (N, W--2850675); *Maguire, Maguire, & Murça Pires 44749* (N).

PAEPALANTHUS DESPERADO Ruhl.

Additional bibliography: Mold., *Phytologia* 33: 38. 1976; Monteiro, Giulietti, Mazzoni, & Castro, *Bol. Bot. Univ. S. Paulo* 7: 44. 1979; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

PAEPALANTHUS DIAMANTINENSIS Mold.

Additional bibliography: Mold., *Phytologia* 26: 250--251. 1973; Angely, *S. Am. Bot. Bibl.* 2: 671. 1980; Mold., *Phytol. Mem.* 2: 152 & 612. 1980.

PAEPALANTHUS DIANTHOIDES Mart.

Additional synonymy: *Papaelanthus dianthoides* Mart. ex Domin, *Ann. Jard. Bot. Buitenz.* 24 [ser. 2, 9]: 247, sphalm. 1911.

Additional bibliography: Domin, *Ann. Jard. Bot. Buitenz.* 24 [ser. 2, 9]: 247. 1911; Mold., *Phytologia* 37: 40. 1977; Mold., *Phytol. Mem.* 2: 152, 153, 429, & 612. 1980.

PAEPALANTHUS DIANTHOIDES var. *LANGSDORFFI* Mold.

Additional bibliography: Mold., *Phytologia* 26: 251 & 252. 1973; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

PAEPALANTHUS DICHOTOMUS Klotzsch

Additional bibliography: Mold., *Phytologia* 37: 40--41 (1977), 49: 380 (1981), and 50: 245 & 270. 1982; Mold., *Phytol. Mem.* 2: 117, 122, 134, 153, & 612. 1980; Hocking, *Excerpt. Bot. A.* 39: 101. 1982.

Recent collectors refer to this plant as an herb or subshrub forming small clumps or dense tufts, the leaves bluish-green, the bracts brown, and the heads "gray-white, inner side grayish-

brown", and have found it growing on sandstone savannas, at 1150 m. altitude, in both flower and fruit in October.

Additional citations: VENEZUELA: Bolívar: Huber & Alarcon 6677 (Ld); Steyermark 59209 (W--1901807). GUYANA: Maas, Mennega, Welle, & Groen 5696 (Ld).

PAEPALANTHUS DICHOTOMUS var. *BRASILIENSIS* Mold.

Additional bibliography: Mold., Phytologia 29: 307. 1974; Mold., Phytol. Mem. 2: 153 & 612. 1980.

PAEPALANTHUS DICHOTOMUS var. *GLABRESCENS* Mold.

Additional bibliography: Mold., Phytologia 26: 253. 1973; Mold., Phytol. Mem. 2: 134 & 612. 1980.

Huber notes regarding this plant: "hierba creciendo en pequeño cojin, poco frecuente sobre banco, cabezuelas blancas" and found it growing at 100 m. altitude, in both flower and fruit in March.

Additional citations: VENEZUELA: Amazonas: O. Huber 4916 (Ld).

PAEPALANTHUS DICHOTOMUS var. *PUMILUS* Mold., Phytologia 49: 385. 1981.

Bibliography: Mold., Phytologia 49: 385 (1981) and 50: 245 & 270. 1982; Hocking, Excerpt. Bot. A.39: 101. 1982.

Citations: VENEZUELA: Bolívar: Moore, Ambrose, Dietz, & Pfister 9632 (Ba--isotype, Ld--type).

PAEPALANTHUS DICHROMOLEPIS Alv. Silv.

Synonymy: *Paepalanthus duchromolepis* Alv. Silv. ex Mold., Phytologia 50: 262, in syn. 1982.

Additional bibliography: Mold., Phytologia 33: 38. 1976; Mold., Phytol. Mem. 2: 153 & 612. 1980; Mold., Phytologia 50: 262. 1982.

Recent collectors have found this plant growing in wet sandy soil, in flower in October.

Additional citations: BRAZIL: Goiás: Hatschbach & Kasper 41684 (Ld, N). MOUNTED ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: pl. 33. 1928 (Ld).

PAEPALANTHUS DIFFISUS Mold.

Additional bibliography: Mold., Phytologia 37: 41. 1977; Mold., Phytol. Mem. 2: 117 & 612. 1980.

Recent collectors describe this plant as a bright-green rosette herb, one-stemmed, the leaves with white hairs on their margins, the peduncles dorsiventrally much compressed, bearing sparse white hairs, the involucre bractlets dark-brown, the florets with white hairs. They have found it abundant at 2200--2380 m. altitude, sometimes ascending to 3050 m., in flower in June, September, and October, and in fruit in June.

Material of this species has been misidentified and distributed in some herbaria as *P. columbiensis* Ruhl.

Additional citations: VENEZUELA: Mérida: Castellano-Monasterio 120 (N); Jeffrey, Trujillo, & Condon 2147 (Eu--59493). Táchira: Steyermark & Rabe 96953 (W--2585479); Trujillo 8389 (Eu--48004).

PAEPALANTHUS DIFFUSUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 41. 1977; Mold., *Phytol. Mem.* 2:153 & 612. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 208--209, pl. 137. 1928 (Ld, N, W).

PAEPALANTHUS DIPLOBETOR Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 41. 1977; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

PAEPALANTHUS DISTICHOPHYLLUS Mart.

Additional bibliography: Mold., *Phytologia* 41: 479. 1979; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Additional citations: BRAZIL: Minas Gerais: *Hatschbach* 27372 (W--2705862).

PAEPALANTHUS DISTICHOPHYLLUS var. *GARDNERI* Mold.

Additional bibliography: Mold., *Phytologia* 26: 257 & 258. 1973; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

PAEPALANTHUS DIVARICATUS (Bong.) Kunth

Additional & emended bibliography: Bong., *Mem. Acad. Imp. Sci. St. Pétersb.*, ser. 6, 1: 621, 622, & 641. 1831; Mold., *Phytologia* 41: 479. 1979; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Additional citations: BRAZIL: Minas Gerais: *Anderson, Stieber, & Kirkbride* 35454 (W--2709583); *Hatschbach* 41276 (W--2840102); *Maguire, Mendes Magalhães, & Maguire* 49246 (W--2435301). MOUNTED CLIPPINGS: Kunth, *Enum. Pl.* 3: 572. 1841 (W).

PAEPALANTHUS DIVARICATUS var. *LATIFOLIUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 260. 1973; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., *Fl. Mont.* 1: 209. 1928 (N, W).

PAEPALANTHUS DIVERSIFOLIUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 26: 260. 1973; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 47--48, pl. 25. 1928 (Ld, N, W).

PAEPALANTHUS DUBIUS Körn.

Additional bibliography: Mold., *Phytologia* 37: 41. 1977; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

PAEPALANTHUS DUIDAE Gleason

Additional bibliography: Hocking, *Excerpt. Bot. A.* 23: 389. 1974; Mold., *Phytologia* 41: 479. 1979; Mold., *Phytol. Mem.* 2: 117, 153, 425, & 612. 1980; *Tillett & Steyer.*, *Ernstia* 9: 3. 1982; Mold., *Phytologia* 54: 121. 1983.

Recent collectors describe this plant as forming dense mats or

dense light-green tufts, the leaves spreading, grass-green, erect, subfleshy, *Isoetes*-like, forming dense green rosettes, and the heads white-woolly. They have encountered it at the edges of forests and canyons, in wet places along streams, and on sandstone ledges of forested rocky prominences above swampy savannas, at 2300--2800 m. altitude, in flower in October, and both in flower and fruit from January to April.

Maguire & al. 65637 & 65638 are said by the collectors to represent the "long-leaved, fertile" form, with blackish bracts and white heads, while their no. 65639 is a "sterile form, caudex elongated, leaves thinner". *Steyermark & Delascio* 129247 is said by the collectors to be "like 129191 but the leaves much larger".

Material of *P. duidae* has been misidentified and distributed in some herbaria as *Rondonanthus roraimae* (Oliv.) Herzog with the comment "very close to *Paepalanthus duidae* and *P. jauensis*" and also as *Syngonanthus acopanensis* Mold. On the other hand, the *Tillett, Colvée, & al.* 752-349 distributed as typical *P. duidae*, actually is the type collection of its var. *parvifolius* Mold. and *Maguire, Steyermark, Brewer-Cariás, Maguire, & Espinosa* 65639 is *P. jauensis* var. *caulescens* Mold.

Additional citations: VENEZUELA: Amazonas: *Maguire, Steyermark, Brewer-Cariás, Maguire, & Espinosa* 65637 (N), 65638 (N), 65639 (N); *Maguire, Wurdack, & Bunting* 36930 (W--2168986), 37123 (W--2168988); *Maguire, Wurdack, & Maguire* 42279 (W); *Steyermark* 58319 (W--1987379), 103920 (Ld, N); *Steyermark, Brewer-Cariás, & Liesner* 124366 (N); *Steyermark & Delascio* 129109 (Ld), 129247 (Ld); *Steyermark, Guariglia, Holmgren, Luteyn, & Mori* 126099 (Ld); *G. H. H. Tate* 456 (W--1498522--isotype), 691 (W--1497456). Bolívar: *Steyermark, Espinosa, McDiarmid, & Brewer-Cariás* 115885 (Ld).

PAEPALANTHUS DUIDAE var. *PARVIFOLIUS* Mold., *Phytologia* 54: 121. 1983.

Bibliography: Mold., *Phytologia* 54: 121. 1983.

Collectors describe this plant as forming dense mats, the leaves narrow and green, and have encountered it at 2580--2600 m. altitude, in both flower and fruit in April.

Citations: VENEZUELA: Amazonas: *Steyermark & Delascio* 129108 (Ve), 129191 (Ld); *Tillett, Colvée, & al.* 752-349 (N--type).

PAEPALANTHUS DUPATYA Mart.

Additional bibliography: Mold., *Phytologia* 33: 38--39. 1976; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Additional citations: BRAZIL: Minas Gerais: *Anderson, Stieber, & Kirkbride* 36148 (W--2709302).

PAEPALANTHUS ELATISSIMUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 33: 39. 1976; Mold., *Phytol. Mem.* 2: 153, 425, & 612. 1980.

Citations: MOUNTED ILLUSTRATIONS: Alv. Silv., *FJ. Mont.* 1: pl. "VVI" [=16]. 1928 (Ld, N, W).

PAEPALANTHUS ELATUS (Rong.) Körn.

Additional bibliography: Mold., *Phytologia* 37: 41. 1977; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Additional citations: MOUNTED CLIPPINGS: Kunth, *Enum. Pl.* 3: 577. 1841 (W).

PAEPALANTHUS ELATUS var. *CALVULUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 26: 472--473. 1973; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

PAEPALANTHUS ELONGATULUS Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 41. 1977; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

PAEPALANTHUS ELONGATUS (Bong.) Körn.

Additional bibliography: Mold., *Phytologia* 41: 479 (1979) and 43: 196--197. 1979; Mold., *Phytol. Mem.* 2: 153, 612, & 613. 1980.

Additional citations: BRAZIL: Goiás: Héring, Paula, Mendonça, & Salles 2333 (E--2773079); Irwin, Grear, Souza, & Santos 14564 (W--2755386); Prance & Silva 58189 (W--2584610A).

PAEPALANTHUS ELONGATUS var. *ANGUSTIFOLIUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 41: 479. 1979; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Recent collectors have encountered this plant at 1100 m. altitude.

The *Hatschbach 43714*, previously cited by me as this taxon, actually represents f. *graminifolius* Herzog instead, while *Hatschbach 36772* and *Hatschbach, Anderson, Barneby, & Gates 36394* are the newly described var. *glabrescens* Mold.

Additional citations: BRAZIL: Goiás: *Hatschbach 43079* (Ld); Irwin, Grear, Souza, & Santos 12251 (W--2755391).

PAEPALANTHUS ELONGATUS var. *CILIATUS* Körn.

Additional bibliography: Mold., *Phytologia* 33: 39. 1976; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Additional citations: MOUNTED CLIPPINGS: Kunth, *Enum. Pl.* 3: 512. 1841 (W).

PAEPALANTHUS ELONGATUS var. *GLABRESCENS* Mold., *Phytologia* 43: 196. 1979.

Bibliography: Mold., *Phytologia* 43: 196. 1979; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Collectors have found this plant growing on wet sandy and on rocky campos, at 1250 m. altitude, in both flower and fruit in February. It has also been found on campo rupestre and in brejo, flowering and fruiting in March. Héring and his associates describe it as an "erva semihante a capim". Some of the material cited below was previously regarded by me as var. *angustifolius* Alv. Silv.

Citations: BRAZIL: Distrito Federal: Héring, Filgueiras,

Mendonça, & Pereira 7108 (N, W--2941405). Goiás: *Hatschbach 36772* (Ld--isotype, Ld--isotype, Ld--photo of type, W--2839374--type), *44760* (Ld); *Hatschbach, Anderson, Barneby, & Gates 36394* (Ac, W--2833247).

PAEPALANTHUS ELONGATUS f. *GRAMINIFOLIUS* Herzog

Additional bibliography: Mold., *Phytologia* 37: 41. 1977; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Recent collectors have found this plant growing in sandy soil of campo rupestre, at 1000 m. altitude, in both flower and fruit in April and July.

Material of this taxon has been misidentified and distributed in some herbaria as var. *angustifolius* Alv. Silv. On the other hand, the *Monteiro S. 230* [Vianna 391; Herb. Dept. Conserv. Ambient. FEEMA 8080], previously cited by me as f. *graminifolius*, is now the type collection of var. *major* Mold.

Additional citations: BRAZIL: Bahia: *Mori, King, Santos, & Hage 12408* (Ld, W--2854252). Goiás: *Hatschbach 43714* (W--2932034); *Irwin, Grear, Souza, & Santos 13298* in part (W--2752350).

PAEPALANTHUS ELONGATUS var. *LONGIBRACTEATUS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 24. 1976; Mold., *Phytol. Mem.* 2: 153 & 612. 1980.

Additional citations: BRAZIL: Goiás: *Irwin, Grear, Souza, & Santos 12374* (W--2755390--isotype).

PAEPALANTHUS ELONGATUS var. *MAJOR* Mold., *Phytologia* 43: 196--197. 1979.

Bibliography: Mold., *Phytologia* 43: 196--197. 1979; Mold., *Phytol. Mem.* 2: 153 & 613. 1980.

Citations: BRAZIL: Minas Gerais: *Monteiro S. 230* [Vianna 391; Herb. Dept. Conserv. Ambient. FEEMA 8080] (Ld--type).

PAEPALANTHUS ELONGATUS var. *MINOR* Ruhl.

Additional bibliography: Mold., *Phytologia* 26: 478. 1973; Mold., *Phytol. Mem.* 2: 153 & 613. 1980.

PAEPALANTHUS ELONGATUS var. *NIGER* Mold.

Additional bibliography: Mold., *Phytologia* 29: 309. 1974; Mold., *Phytol. Mem.* 2: 153 & 613. 1980.

Recent collectors refer to this plant as 80 cm. tall, the inflorescence white, and have encountered it in brejo.

Additional citations: BRAZIL: Goiás: *Héringer, Paula, Mendonça, & Salles 2333* (N, W--2927087); *Irwin, Harley, & Smith 32187* (W--2709633--isotype).

PAEPALANTHUS ELONGATUS var. *PUBESCENS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 29: 309--310. 1974; Mold., *Phytol. Mem.* 2: 153 & 613. 1980.

Additional citations: BRAZIL: Goiás: *W. R. Anderson 8044* (W--2755392). Minas Gerais: *Irwin, Harley, & Onishi 29039* (W--2709592); *Maguire, Mendes Magalhães, & Maguire 49298* (W--2435290).

MOUNTED CLIPPINGS: *Alv. Silv.*, *Fl. Mont.* 1: 133. 1928 (N, W).

PAEPALANTHUS ENSIFOLIUS (H.B.K.) Kunth

Additional bibliography: *Mold.*, *Phytologia* 41: 479--480. 1979; *Mold.*, *Phytol. Mem.* 2: 110, 129, 134, 425, & 613. 1980; *Mold.*, *Phytologia* 53: 264. 1983.

Recent collectors describe this species as a large, terrestrial, rosette plant, the flower-heads white, "often on long stems" [=peduncles], and have found it growing "among wet herb vegetation between dry scrub vegetation", on wet slopes in areas of "dry grassy slopes, shrubby mountain slopes and elfin forest", on wet slopes in areas of "grass páramo with large sloping bogs toward the lakes and up to 3 m. tall scrub in protected places", in marshes in elfin forests, and "dominant in wet springs in areas of dry scrub 1--3 m. tall", at altitudes of 2650--3450 m., in both flower and fruit from March to May, as well as in July, September, and December.

Tillett describes the plant as locally frequent in and at the edges of bogs, growing singly or in clusters, the roots dark-brown and fibrous, the plants erect, to 3 dm. tall, clothed with the old brown leaves, "the green leaves [issuing] from a knob, narrow-necked, on top of the stem, white within save for the tan vascular tissue, the leaves soft-coriaceous, with a slight bloom, lustrous medium-green above, lustrous light-green beneath, the peduncles medium yellow-green, the bracts brown, those immediately subtending the flowers olive, the flowers gray-white".

The *Callejas & Gaviria 864*, distributed as *P. ensifolius*, appears actually to be *P. crassicaulis* Körn.

Additional citations: ECUADOR: *Azuay: Camp E.402* (W--2056925); *Holm-Nielsen, Jeppesen, Løjtntant, & Øllgaard 3664* (Ac, E--2773086), *5071* (Ac, E--2773090). *Loja: Balslev 1271* (N), *1410* (Ld, N); *Holm-Nielsen, Jeppesen, Løjtntant, & Øllgaard 3664* (Ac, E--2773085); *MacBryde 308* (E--2773075); *Madison & Coleman 2437* (N); *Øllgaard & Balslev 9712* (Ac, N). *Zamora: Maguire & Maguire 44350* (N). PERU: *Amazonas: Boeke 2112* (N, N, N); *Tillett 673-339* (W--2853939).

PAEPALANTHUS ERECTIFOLIUS *Alv. Silv.*

Additional bibliography: *Mold.*, *Phytologia* 37: 42. 1977; *Mold.*, *Phytol. Mem.* 2: 153 & 613. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: *Alv. Silv.*, *Fl. Mont.* 1: pl. 125 & 126. 1928 (Ld, N, W).

PAEPALANTHUS ERECTIFOLIUS var. *GLABER* *Alv. Silv.*

Additional bibliography: *Mold.*, *Phytologia* 26: 481--482. 1973; *Mold.*, *Phytol. Mem.* 2: 153 & 613. 1980.

PAEPALANTHUS ERECTIFOLIUS var. *GRANDIFOLIUS* *Alv. Silv.*

Additional bibliography: *Mold.*, *Phytologia* 26: 482. 1973; *Mold.*, *Phytol. Mem.* 2: 153 & 613. 1980.

Citations: MOUNTED CLIPPINGS: *Alv. Silv.*, *Fl. Mont.* 1: 192. 1928 (N, W).

PAEPALANTHUS ERIGERON Mart.

Additional synonymy: *Paepalanthus erigeron* "Mart. ex Koern." apud Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 74. 1980.

Additional bibliography: Mold., *Phytologia* 41: 480. 1979; Mold., *Phytol. Mem.* 2: 153, 613, & 628. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 74. 1980; Mold., *Phytologia* 50: 263. 1982.

Recent collectors describe this species as a rosette herb, to 30 cm. tall, the leaves rather fleshy and gray-green or dark glossy-green above and paler beneath, soft, the peduncles to 40 cm. long, and the fruiting-heads brown. They have found it growing on high sandstone bluffs along roadsides and in the shade of overhanging rocks, among rocks, and on campo rupestre, at 1000--1200 m. altitude, in flower in July and October, and in fruit in February, July, and October.

Additional citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 18753 (K), 18888 (Ld, N, W--2936339); Mori 12909 (Ld, N); Mori, King, Santos, & Hage 12561 (Ld, W--2854284), 12679 (Ld, W--2854285).

PAEPALANTHUS ERIOCAULOIDES Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 42. 1977; Mold., *Phytol. Mem.* 2: 153 & 613. 1980.

PAEPALANTHUS ERIOPHAEUS Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 42. 1977; Mold., *Phytol. Mem.* 2: 153 & 613. 1980.

PAEPALANTHUS ESPINOSIANUS Mold.

Synonymy: *Paepalanthus espinosoides* Mold., *Phytol. Mem.* 2: 425 in syn. 1980.

Additional bibliography: Mold., *Phytologia* 26: 484. 1973; Mold., *Phytol. Mem.* 2: 129, 134, 425, & 613. 1980; Mold., *Phytologia* 53: 264. 1983.

Recent collectors describe this plant as cushion-forming and have found it growing "in small springs on paramo with humid paramo vegetation and abundant *Espeletia hartwegiana*", "in strongly wind-exposed places on windswept ridges with recently burned grass paramos and adjacent scrubby forest", and "in flush bogs in areas of dry low scrub vegetation, more humid in small hollows and valleys", at 2850--3500 m. altitude, in flower in May and September.

Material of this species has been misidentified and distributed in some herbaria as *Eriocaulon* sp.

Additional citations: ECUADOR: Azuay: Balslev 1535 (Ld, N). Carchi: Holm-Nielssen, Jeppesen, Løjtnant, & Øllgaard 5277 (Ut--3525738). Morona-Santiago: Øllgaard & Balslev 9557 (Ac, N, N). Santiago-Zamora: Steyermark 54342 (W--1901690--isotype).

PAEPALANTHUS EURYPHYLLUS Ruhl.

Additional bibliography: Hocking, *Excerpt. Bot. A.* 23: 389. 1974; Mold., *Phytologia* 29: 310. 1974; Mold., *Phytol. Mem.* 2:

153 & 613. 1980.

Additional citations: *Anderson, Stieber, & Kirkbride 35679* (W--2709585).

PAEPALANTHUS EXIGUUS (Bong.) Körn.

Additional bibliography: Mold., *Phytologia* 37: 42. 1977; Mold., *Phytol. Mem.* 2: 153, 425, & 613. 1980.

Additional citations: BRAZIL: Minas Gerais: *Anderson, Stieber, & Kirkbride 35647* (W--2709306). Pará: *Secco 238* (Ld); *Secco & al.* 192 (Ld). MOUNTED CLIPPINGS: Kunth, *Enum. Pl.* 3: 574. 1841 (N, W).

PAEPALANTHUS EXIGUUS var. *LONGIFOLIUS* Beauverd

Additional bibliography: Mold., *Phytologia* 29: 311--312. 1974; Mold., *Phytol. Mem.* 2: 153 & 613. 1980.

Citations: MOUNTED CLIPPINGS: Beauverd, *Bull. Herb. Boiss.*, ser. 2, 8: 293. 1908 (N, W).

PAEPALANTHUS EXTREMENSIS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 33: 40. 1976; Mold., *Phytol. Mem.* 2: 153 & 613. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 163--164, pl. 103. 1928 (Ld, N, W).

PAEPALANTHUS FALCIFOLIUS Körn.

Additional bibliography: Mold., *Phytologia* 41: 480. 1979; Mold., *Phytol. Mem.* 2: 153, 400, & 613. 1980; Mold. in *Harley & Mayo, Toward Checklist Fl. Bahia* 74. 1980.

Additional citations: BRAZIL: Bahia: *Harley, Renvoize, Erskine, Brighton, & Pinheiro in Harley 15633* (W--2791570). Minas Gerais: *Maguire, Mendes Magalhães, & Maguire 49299* (W--2435334).

PAEPALANTHUS FALLAX Beauverd

Additional bibliography: Mold., *Phytologia* 29: 314--315. 1974; Mold., *Phytol. Mem.* 2: 153 & 613. 1980.

Citations: MOUNTED CLIPPINGS: Beauverd, *Bull. Herb. Boiss.*, ser. 2, 8: 288--290. 1908 (N, W).

PAEPALANTHUS FASCICULATUS (Rottb.) Körn.

Additional & emended bibliography: J. F. Gmel. in L., *Syst. Nat.*, ed. 13, imp. 1, 2: 206 & 867. 1791; Sweet, *Hort. Brit.*, ed. 2, 597. 1830; Loud., *Hort. Brit.*, ed. 1, 37 (1830) and ed. 2, 37. 1832; G. Don in Loud., *Hort. Brit.*, ed. 3, 37. 1839; G. Don in Sweet, *Hort. Brit.*, ed. 3, 719. 1839; Knuth, *Feddes Repert. Spec. Nov. Beih.* 43: [Init. Fl. Venez.] 179--180. 1927; Savage, *Cat. Linn. Herb. Lond.* 21. 1945; Anon., *Kew Bull. Gen. Ind.* 111. 1959; Mold., *Phytologia* 41: 480--481. 1979; Mold., *Phytol. Mem.* 2: 110, 117, 122, 124, 126, 153, 425, & 613. 1980.

Recent collectors have found this plant growing on terra firme, in bare sandy areas, and on savannas and sandy campinas, at 120 m. altitude, in both flower and fruit in May, July, and September to November, describing it as a locally common annual to 15 cm.

tall. Madison and his associates refer to it as a tiny terrestrial herb with white flowers, forming turf in open sandy areas of caatinga; their no. 6314 is a mixture with f. *sphaerocephalus* Herzog, as are also Alencar 691, Cid & al. 61, Huber & Tillett 6403, Schultes & Cabrera 13110 & 18068, and possibly Baldwin 3467.

Davidson & Martinelli encountered *P. fasciculatus* in disturbed roadside margins in tall forests on terra firme, in laterized clay with sand deposits, and on hot white-sand roadbanks. Pool describes the inflorescence heads as "white, turning light-brown". Knuth (1927) cites an unnumbered Humboldt & Bonpland collection from Bolívar, Venezuela.

Material of *P. fasciculatus* has been misidentified and distributed in some herbaria as *P. lamarckii* Kunth. The *H. L. Clark* 6654, distributed as typical *P. fasciculatus*, actually seems to be its f. *sphaerocephalus* Herzog, while Maguire & Politi 28309 is a mixture with *Syngonanthus macrocaulon* Ruhl.

Additional & emended citations: COLOMBIA: Amazonas: Schultes & Cabrera 15531 in part (W--2171633), 16436 (W--2144120). Vaupés: Schultes, Baker, & Cabrera 18068 (W--2198891); Schultes & Cabrera 13110 in part (W--2171100), 14174 in part (W--2171374, W--2198865), 18068 in part (W--2172057). VENEZUELA: Amazonas: *H. L. Clark* 6457 (Ld, N); Huber & Tillett 6403 in part (Ld); Liesner 3403 (Ld); Maas & Steyermark 5179 (Ut--390371B); Maguire & Wurdack 34898 in part (W--2168936); Steyermark & Bunting 102685 in part (W--2622555); Wurdack & Adderley 42913 (W--2320889). GUYANA: Maguire & Fanshawe 23560 in part (W--1907830). SURINAM: Maguire & Stahel 23618 (W--1907848); *W. W. Thomas* 2404 (Ld). FRENCH GUIANA: Hallé 454 (Cy, Cy); Sastre 5498 (Cy). BRAZIL: Amazonas: Alencar 691 in part (Ld, N); Baldwin 3467 (W--1878917); Cid, Buck, Nelson, Almeida, Mota, & Lima 61 in part (Ld, N); Davidson & Martinelli CD.10000 (Ld); Fróes 28044 (W--2341533); Madison, Kennedy, Monteiro, & Braga 6314 in part (N); Ongley & Ramos *P.* 21770 in part (Ld); Poole 1968 in part (Ld, N, W--2961628); Prance 23527 (N, W--2935283); Prance, Anderson, & Schubert 23501 (N); Prance, Berg, Bisby, Steward, Monteiro, & Ramos 17921 (W--2780466). Amapá: *W. A. Egler* 47238 (W--2435327). MOUNTED CLIPPINGS & ILLUSTRATIONS: Herzog, Feddes Repert. Spec. Nov. 29: 205. 1931 (N, W); R. E. Schult., Bot. Mus. Leafl. Harv. Univ. 16 (4): pl. 11. 1953 (Ld).

PAEPALANTHUS FASCICULATUS var. *ICANENSIS* Herzog

Additional bibliography: Mold., Phytologia 29: 321. 1974; Mold., Phytol. Mem. 2: 153 & 613. 1980.

Recent collectors have found this plant growing in low scrub on white sand, at 220 m. altitude, in both flower and fruit in May and September.

Material of this variety has been misidentified and some even previously cited by me as typical *P. fasciculatus* (Rottb.) Kunth or its f. *sphaerocephalus* Herzog or f. *tenellus* Herzog. The Steyermark & Bunting 102696 collection is a mixture with a grass.

Additional citations: COLOMBIA: Vaupés: Cuatrecasas 6976 (N,

N, W--1796732). VENEZUELA: Amazonas: *Steyermark & Bunting 102696* in part (Ld, W--2622554). Bolívar: *Steyermark 89689* (Mi, N, W--2430107, W--2486398). BRAZIL: Amazônas: *Prance, Ramos, Farias, & Philcox 4837* (Ac, N, W--2573082A). MOUNTED CLIPPINGS: Herzog, Feddes Repert. Spec. Nov. 29: 205. 1931 (N, W).

PAEPALANTHUS FASCICULATUS f. *PROLIFERUS* Mold.

Additional bibliography: Mold., *Phytologia* 29: 319 & 321--322. 1974; Mold., *Phytol. Mem.* 2: 117, 153, & 613. 1980.

PAEPALANTHUS FASCICULATUS f. *RIGIDUS* Herzog

Additional bibliography: Mold., *Phytologia* 29: 322. 1974; Mold., *Phytol. Mem.* 2: 153 & 613. 1980.

Additional citations: MOUNTED CLIPPINGS: Herzog, Feddes Repert. Spec. Nov. 29: 205. 1931 (N, W).

PAEPALANTHUS FASCICULATUS f. *SPHAEROCEPHALUS* Herzog

Additional bibliography: Mold., *Phytologia* 41: 480. 1979; Mold., *Phytol. Mem.* 2: 110, 117, 122, 153, & 613. 1980.

Recent collectors describe this plant as an herb, 20--30 cm. tall, forming a turf in open sandy areas, terrestrial, often tiny, the heads hemispheric and light-tan, and the bracts dark-tan, the actual flowers white. They have found it growing on terra firme, on "campina de areia branca", in full sun along roadsides, at the edge of water in disturbed forests, on white sand near streams, and forming turf in open areas of caatinga, at 119--120 m. altitude, in both flower and fruit in April, May, July, and October. Clark reports it locally abundant in loose coarse sand in a region of 3.4--3.6 m. rainfall per year.

This form often appears to be merely a growth stage, abundantly mixed with the typical form of the species in herbarium collections, but at other times seems to represent pure-stand populations. The following are some of the collections which are mixtures of this form and typical *P. fasciculatus* (Rottb.) KÙrn.: Alencar 691, Cid & al. 61, Huber & Tillett 6403, Madison & al. 6314, and Schultes & Cabrera 13110 & 18068.

Additional citations: COLOMBIA: Vaupés: Pérez Arbeláez & Cuatrecasas 6757 (W--1796727); Schultes & Cabrera 12391b (W--2198863), 13110 in part (W--2171100, W--2198879), 14173 (W--2198864), 14174 in part (W--2198865), 15531 in part (W--2171633), 17194 (W--2171843, W--2198885), 18068 in part (W--2172057), 18347 (Ss, W--2172129, W--2198899), 19554 (Ss, W--2172582, W--2198932); Zarucchi 1680 (W--2832501); Zarucchi & Balick 1759 (W--2832409). VENEZUELA: Amazonas: H. L. Clark 6654 (N); O. Huber 2586 (Ve); Huber & Medina 5646 (Ld); Huber & Tillett 6403 in part (Ld); Liesner 6364 (Ld), 7473 (Ld); Maguire & Wurdack 34898 in part (W--2168936); Maguire, Wurdack, & Bunting 36420 (W--2168976); Steyermark & Bunting 102685 in part (W--2622555). Bolívar: Steyermark 90336 (W--2430108). GUYANA: Cowan & Soderstrom 1737 (W--2678028); Maguire & Fanshawe 23001 (W--1907816), 23560 in part (W--1907839). SURINAM: Maguire 23983 (W--1907851). FRENCH GUIANA: Hoock s.n. [19 Juillet 1955] (Cy), s.n. [22 Mai 1957] (Cy),

Ld). BRAZIL: Amazonas: Alencar 691 in part (Ld); Baldwin 3222 (W--1878799), 3389 (W--1878881), 3548 (W--1878944); Cid, Buck, Nelson, Almeida, Mota, & Lima 61 in part (N); Lasseigne 21169 in part (W--2780463); Madison, Kennedy, Monteiro, & Braga 6314 in part (N, W--2889766), 6453 (N); Nascimento 663 (Ld, N); Ongley & Ramos P.21770 in part (N, W--2935293); Poole 1968 in part (W--2961628); Prance, Coêlho, Maas, & Pinheiro 11659 (W--2801671); Prance, Maas, Woolcott, Monteiro, & Ramos 15682 (W--2801666); Prance, Ramos, Farias, & Coêlho 9069 (W--2673076A); Rôdrigues & Coêlho 2574 (N); Rodrigues, Coêlho, & Monteiro 8590 (W--2920841). Pará: Cid, Ramos, Mota, & Rosas 1869 [Herb. Inst. Nac. Pesq. Amaz. 96037] (Ld); Silva & Santos 4691 (N, N). Rondônia: Cordeiro s.n. [25 April 1976] (E--2466527). MOUNTED CLIPPINGS: Herzog, Feddes Repert. Spec. Nov. 29: 205. 1931 (N, W).

PAEPALANTHUS FASCICULATUS f. *TENELLUS* Herzog

Additional bibliography: Mold., Phytologia 41: 480--481. 1979; Mold., Phytol. Mem. 2: 117, 122, 124, 153, & 613. 1980.

Recent collectors have encountered this plant in low restinga vegetation over white sand surrounded by hugh forest on terra firme.

The Schultes & Cabrera 14968 collection is a mixture with *P. lamarckii* Kunth and *Syngonanthus caulescens* (Poir.) Ruhl.

Additional citations: COLOMBIA: Vaupés: Schultes & Cabrera 14173 (W--2171373), 14968 in part (W--2198877). VENEZUELA: Amazonas: Steyermark 57729 (W--1901735). Bolívar: Maguire, Steyermark, & Maguire 53609 (W--2514909). GUYANA: Cowan & Soderstrom 1748 (W--2678025). SURINAM: B. Maguire 24191 (W--1907833), 24298 (W--1907836), 24677 (W--1907842). BRAZIL: Pará: Campbell, Ongley, Ramos, Monteiro, & Nelson P.22539 (N, W--2935282); Davidson & Martinelli s.n. [30 June 1980] (N). MOUNTED CLIPPINGS: Herzog, Feddes Repert. Spec. Nov. 29: 205. 1931 (N, W).

PAEPALANTHUS FASCICULIFER Alv. Silv.

Additional bibliography: Mold., Bigl. Abstr. 61: 4884. 1976; Mold., Phytologia 37: 43. 1977; Mold., Phytol. Mem. 2: 153 & 613. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl Mont. 1: 73--74, pl. 42. 1928 (Ld, N, W).

PAEPALANTHUS FASCICULIFER var. *CAPILLIFOLIUS* Mold.

Additional bibliography: Mold., Biol. Abstr. 61: 4884. 1976; Mold., Phytologia 37: 43. 1977; Mold., Phytol. Mem. 2: 153 & 613. 1980.

Additional citations: BRAZIL: Goias: Hatschbach 36839 (W--2849703--isotype).

PAEPALANTHUS FASTIGIATUS (Bong.) Körn.

Additional synonymy: *Faepalanthus fastigiatus* (Bong.) Ruhl., in herb.

Additional bibliography: Mold., Phytologia 29: 325--326. 1974; Mold., Phytol. Mem. 2: 154 & 613. 1980.

Citations: MOUNTED CLIPPINGS: Bong., Ess. Monog. Erioc. 24. 1831 (N, W); Kunth, Enum. Pl. 3: 573. 1841 (N, W).

PAEPALANTHUS FERREYRAE Mold.

Additional bibliography: Mold., Phytologia 29: 326. 1974; Mold., Phytol. Mem. 2: 134 & 613. 1980.

PAEPALANTHUS FILIPES Mold.

Additional bibliography: Mold., Phytologia 29: 326. 1974; Mold., Phytol. Mem. 2: 122 & 613. 1980.

Citations: GUYANA: Maguire & Fanshawe 23021 (N--type, W--1907818--isotype).

PAEPALANTHUS FILOSUS Ruhl.

Additional bibliography: Mold., Phytologia 37: 43. 1977; Mold., Phytol. Mem. 2: 154 & 613. 1980.

PAEPALANTHUS FIMBRIATUS Alv. Silv.

Additional bibliography: Mold., Phytologia 29: 326--327. 1974; Mold., Phytol. Mem. 2: 154 & 613. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 197--198, pl. 130. 1928 (Ld, N, W).

PAEPALANTHUS FLACCIDUS (Bong.) Kunth

Additional synonymy: *Paepalanthus flaccidus* Bong. apud Ruhl. in Wettstein, Denkschr. K. Akad. Wiss. Wien Math.-Nat. 79: 87. 1908.

Additional & emended bibliography: Bong., Mem. Acad. Imp. Sci. St. Petersburg, ser. 6, 1: 636--637 & 643--644. 1831; Ruhl. in Wettstein, Denkschr. K. Akad. Wiss. Wien Math.-Nat. 79: 87. 1908; Mold., Phytologia 37: 43. 1977; Monteiro, Giulietti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo 7: [43], 45, 46, 52, & 57, fig. 63--68. 1979; Mold., Phytol. Mem. 2: 1-4, 425, & 613. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 74. 1980.

Additional illustrations: Monteiro, Giulietti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo 7: 57, fig. 63--68. 1979.

Recent collectors describe this plant as an herb, to 30 cm. tall, forming compact hemispheric mounts when in flower, with rigid dark-green leaves, spreading, glossy, yellow-green peduncles, and white flowering-heads. They have encountered it on campo rupestre among dry soil vegetation and in areas of closed cerra-do with adjoining grassland and marsh, at 1000--1300 m. altitude, in both flower and fruit in March and July.

Additional & emended citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 19790 (Ld, N, W--2936324); Mori, King, Santos, & Hage 12285 (Ld, W--2854246). Distrito Federal: Héring 12138 [Herb. Brad. 64010] (Ja). Minas Gerais: Irwin, Fonsêca, Souza, Reis dos Santos, & Ramos 28576 (W--2861723); Widgren s.n. [1845] (N). MOUNTED CLIPPINGS: Kunth, Enum. Pl. 3: 512 & 579. 1841 (N, W).

PAEPALANTHUS FLAVICEPS Körn.

Additional bibliography: Mold., *Phytologia* 29: 329--330. 1974; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

PAEPALANTHUS FLAVORUTILUS Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 43. 1977; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

PAEPALANTHUS FOLIOSUS Körn.

Additional bibliography: Mold., *Phytologia* 35: 25. 1976; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

PAEPALANTHUS FORMOSUS Mold.

Additional bibliography: Mold., *Phytologia* 41: 481. 1979; Mold., *Phytol. Mem.* 2: 117, 154, & 613. 1980.

Additional citations: BRAZIL: Amazonas: Maguire & Maguire 35235 (W--2168943, W--2168944, W--2168945), 35432 (W--2168950, W--2168951).

PAEPALANTHUS FRATERNUS N. E. Br.

Additional bibliography: Knuth, Feddes *Repert. Spec. Nov. Beih.* 43: [Init. Fl. Venez.] 180. 1927; Mold., *Phytologia* 41: 478 & 481. 1979; Mold., *Phytol. Mem.* 2: 117, 122, & 613. 1980; Mold., *Phytologia* 49: 380--381 (1981) and 50: 245 & 270. 1982; Hocking, *Excerpt. Bot. A.* 39: 101. 1982; Mold., *Phytologia* 54: 66--67 & 220. 1983.

Recent collectors describe this plant as forming dense clumps on herb-covered mounds or dense tufts, the leaves stiffly coriaceous, rich-green on both surfaces, and the flowering-heads white or whitish to whitish-gray, surrounded by black or dark-maroon involucre bracts. They have found it growing along the edge of sandstone rock formations bordering subsavannas of Mallophyton and Chimantaea, in low Mallophyton chimantensis scrub, in open places, especially in zanjon, and on swampy savannas, at 2300--2685 m. altitude, in both flower and fruit in January, February, and October.

Material has been misidentified and distributed in some herbaria as the very closely related *P. convexus* Gleason. On the other hand, the Steyermark 93683 & 93958 and Steyermark, Espinosa, McDiarmid, & Brewer-Carías 115991, distributed as *P. fraternus*, actually are *P. convexus* Gleason, while Persaud 130 is *P. auyantepuiensis* Mold., Maguire, Steyermark, Brewer-Carías, Maguire, & Espinosa 65609 and Steyermark, Brewer-Carías, Dunsterville, & Dunsterville 112437 are *P. fraternus* var. *marahuacensis* Mold., Steyermark, Brewer-Carías, & Liesner 124407 is *P. fraternus* var. *radiatus* Mold., Steyermark & Wurdack 490 is *P. fraternus* var. *spathulatus* Mold., Steyermark 58849 is *P. perplexans* Mold.

Knuth (1927) cites Connell & Quelch 96 & 659 and Ule s.n. from Roraima, Venezuela.

Additional citations: VENEZUELA: Amazonas: Steyermark 103839 (Id, N, N). Bolívar: Huber & Steyermark 7158 (Id); Steyermark

58901 (W--1987399), 93959 (W--2584275); Steyermark, Espinosa, Mc Diarmid, & Brewer-Carías 115818 (Ld), 115842 (Ld), 115857 (Ac), 115886 (Ac, Ld), 115896 (Ld); Steyermark, Huber, & Carreño E. 128875 (Ld); Steyermark & Wurdack 1045 (W--2168529, W--2407799).

PAEPALANTHUS FRATERNUS var. *CHIMANTENSIS* Mold., *Phytologia* 54: 66--67. 1983.

Bibliography: Mold., *Phytologia* 54: 66--67 & 234. 1983.

Citations: VENEZUELA: Bolívar: Steyermark, Huber, & Carreño E. 128944a (Ld--type).

PAEPALANTHUS FRATERNUS var. *MARAHUACENSIS* Mold., *Phytologia* 49: 385. 1980.

Bibliography: Mold., *Phytologia* 49: 385. 1981; Hocking, Excerpt. Bot. A.39: 101. 1982; Mold., *Phytologia* 50: 245 & 270. 1982.

Collectors refer to this plant as forming dense clumps, the flowering-heads sordid-white, the leaves green, and have found it growing at 2000--2800 m. altitude, in both flower and fruit in February, March, and September. Material has previously been confused with *P. convexus* Gleason and typical *P. fraternus* N. E. Br.

Citations: VENEZUELA: Amazonas: Maguire, Steyermark, Brewer-Carías, Maguire, & Espinosa 65609 (E--2901867--isotype, E--1901871--isotype, Ld--isotype, N--type); Steyermark, Brewer-Carías, & Liesner 124391 (E--2901870), 124407 (E--2901863); Steyermark & Delascio 129106 (Ld). Bolívar: Steyermark, Brewer-Carías, Dunsterville, & Dunsterville 112437 (N); Steyermark, Huber, & Carreno E. 128175 (Ld).

PAEPALANTHUS FRATERNUS var. *RADIATUS* Mold., *Phytologia* 49: 385--386. 1981.

Bibliography: Mold., *Phytologia* 49: 385--386 (1981) and 50: 245 & 270. 1982; Hocking, Excerpt. Bot. A.39: 101. 1982.

Citations: VENEZUELA: Amazonas: Steyermark, Brewer-Carías, & Liesner 124407 (N--type).

PAEPALANTHUS FRATERNUS var. *SPATHULATUS* Mold., *Phytologia* 49: 386. 1981.

Bibliography: Mold., *Phytologia* 49: 386 (1981) and 50: 245 & 270. 1982; Hocking, Excerpt. Bot. A.39: 101. 1982.

The type collection of this taxon was previously confused with typical *P. fraternus* N. E. Br. and so cited.

Citations: VENEZUELA: Bolívar: Steyermark & Wurdack 490 (Ld--isotype, Mu--isotype, N--type, W--2168511--isotype, W--2407720--isotype).

PAEPALANTHUS FREYREYSII (Billb.) Körn.

Additional & emended bibliography: Bong., *Mem. Acad. Imp. Sci. St. Petersburg*, ser. 6, 1: 625--626. 634, & 635. 1831; Mold., *Phytologia* 37: 44. 1977; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

Additional citations: MOUNTED CLIPPINGS: Bong., *Ess. Monog.*

Erioc. 26. 1831 (N, W); Kunth, Enum. Pl. 3: 502 & 574. 1841 (N, W).

PAEPALANTHUS FULGIDUS Mold.

Additional bibliography: Mold., *Phytologia* 29: 390--391. 1974; Mold., *Phytol. Mem.* 2: 117, 154, & 613. 1980.

PAEPALANTHUS FULGIDUS var. *ZULOAGENSIS* Mold.

Additional bibliography: Mold., *Phytologia* 29: 291. 1974; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

Steeyermark and his associates describe this plant as subcaulescent, the leaves recurved, shiny dark-green above, pale-green beneath, the "heads white with black [involucral bracts?]", and have found it growing in wet soil at the edges of forests, at 1850--2450 m. altitude, in both flower and fruit in February. The area of collection is apparently on the border of Amazonas, Brazil, and Bolívar, Venezuela, so the taxon probably occurs in both countries.

Additional citations: VENEZUELA: Bolívar: *Steeyermark, Huber, & Carreño E. 128937* (ld).

PAEPALANTHUS FUNCKEANUS Körn.

Additional bibliography: Knuth, Feddes Repert. Spec. Nov. Beih. 43: [Init. Fl. Venez.] 180. 1927; Mold., *Phytologia* 29: 391. 1974; Mold., *Phytol. Mem.* 2: 117 & 613. 1980.

Recent collectors have found this plant growing at 1400 m. altitude, in both flower and fruit in September. Knuth (1927) cites *Funck & Schlim 809* from Trujillo, Venezuela.

Additional citations: VENEZUELA: Trujillo: *Benítez de Rojas 1928* (Eu--48012).

PAEPALANTHUS FUSCOATER Körn.

Additional bibliography: Mold., *Phytologia* 29: 391--392. 1974; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

PAEPALANTHUS FUSCOATER var. *MINOR* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 29: 392. 1974; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., *Fl. Mont.* 1: 181. 1928 (N, W).

PAEPALANTHUS FUSCUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 44. 197; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 243--244, pl. 162. 1928 (ld, N, W).

PAEPALANTHUS GARDNERIANUS Walp.

Additional bibliography: Mold., *Phytologia* 37: 44. 1977; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Walp., *Ann. Bot. Syst.* 1: 889. 1848 (N, W); G. Gardn. in Hook. f., *Icon. Pl.* 6

[ser. 2, 2]: pl. 528. 1843 (Ba).

PAEPALANTHUS GARIMPENSIS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 26. 1976; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 251--253, pl. 167. 1928 (Ld, N, W).

PAEPALANTHUS GENICULATUS (Bong.) Kunth

Additional bibliography: Mold., *Phytologia* 37: 44. 1977; Mold., *Phytol. Mem.* 2: 154, 425, & 613. 1980.

Additional citations: BRAZIL: Minas Gerais: Black & Mendes Magalhães 51-11846 (W--2252979); Murça Pires & Black 2801 (W--222486). MOUNTED CLIPPINGS: Kunth, *Enum. Pl.* 3: 572. 1841 (N, W).

PAEPALANTHUS GENTLEI Mold.

Additional bibliography: Mold., *Phytologia* 41: 481. 1979; Mold., *Phytol. Mem.* 2: 74 & 613. 1980.

PAEPALANTHUS GIBBOSUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 29: 479. 1974; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 142--144, pl. 89. 1928 (Ld, N, W).

PAEPALANTHUS GLABRIFOLIUS Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 44. 1977; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

PAEPALANTHUS GLAREOSUS (Bong.) Kunth

Additional bibliography: Mold., *Phytologia* 35: 26. 1976; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

Additional citations: MOUNTED CLIPPINGS: Kunth, *Enum. Pl.* 3: 571. 1841 (N, W).

PAEPALANTHUS GLAUDESCENS Körn.

Additional bibliography: Mold., *Phytologia* 29: 481. 1974; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

PAEPALANTHUS GLAUCOPHYLLUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 41: 481. 1979; Mold., *Phytol. Mem.* 2: 154, 425, 426, & 613. 1980.

Emended citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 23--23, pl. 8. 1928 (Ld, N, W).

PAEPALANTHUS GLAUCOPODUS Alv. Silv.

Additional bibliography: Mold., *Phytologia* 29: 482. 1974; Mold., *Phytol. Mem.* 2: 154 & 613. 1980.

Citations: MOUNTED ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: pl. 2 & 63 bis. 1928 (Ld, N, W). [to be continued]